

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method for accessing a shared resource comprising:
a first station sharing a resource with a plurality of other stations;
the first station determining a first average backoff interval by measuring an average wait time that the first station incurred during a plurality of previous access attempts to the shared resource; and
once it is determined that the first station desires access to the shared resource and the shared resource first becomes available, the first station refraining from contending for access to said shared resource for at least an interval substantially equal to the first average backoff interval.
2. (Currently Amended) The method of claim 1, further comprising the first station transmitting a frame to one of the other stations using the shared resource after said first average backoff interval has passed, wherein said shared resource is a shared-communications channel.
3. (Currently Amended) The method of claim 1, further comprising, after the first average backoff period interval is determined, the first station powering down a receiver circuit for at least a portion of said first average backoff interval while the first station is refraining from contending for access to the shared resource.
4. (Currently Amended) The method of claim 1, wherein said first average backoff interval is further based on a moving average.
5. (Currently Amended) The method of claim 1, further comprising the first station refraining from contending for access to the shared resource for a second random backoff period interval beyond said first determined average backoff period interval.
6. (Currently Amended) The method of claim 5, wherein said second random backoff period interval assumes a nonzero value only after an unsuccessful attempt to transmit occurs.

7. (Previously Presented) The method of claim 1, wherein said backoff interval is constrained to be at least as long as an 802.11 distributed interframe space.
8. (Currently Amended) A method for accessing a shared resource comprising:
a first station sharing a resource with a plurality of other stations;
the first station determining a first average backoff interval by measuring an average wait time that the first station incurred during a plurality of previous access attempts to the shared resource;
once it is determined that the first station desires access to the shared resource and the shared resource first becomes available, the first station refraining from contending for access to said shared resource for at least an interval substantially equal to said first average backoff interval; and
after the first average backoff period interval is determined, the first station powering down a receiver circuit for at least a portion of said first average backoff interval while the first station is refraining from contending for access to the shared resource.
9. (Currently Amended) The method of claim 8, further comprising the first station transmitting a frame to one of the other stations using the shared resource after said first average backoff interval has passed, wherein said shared resource is a shared-communications channel.
10. (Currently Amended) The method of claim 8, wherein said first average backoff interval is further based on a moving average.
11. (Currently Amended) The method of claim 8, further comprising the first station refraining from contending for access to the shared resource for a second random backoff period interval beyond said first average backoff period interval.
12. (Currently Amended) The method of claim 11, wherein said second random backoff period interval assumes a nonzero value only after an unsuccessful attempt to transmit occurs.
13. (Currently Amended) An apparatus comprising:
a transmitter for transmitting data over a shared resource; and

a processor configured to determine a first average backoff interval by measuring an average wait time that the transmitter incurred during a plurality of previous attempts to access the shared resource and, once it is determined that the apparatus desires access to the shared resource and the shared resource first becomes available, to cause the apparatus to refrain from contending for access to said shared resource for at least an interval substantially equal to the first average backoff interval.

14. (Currently Amended) The apparatus of claim 13, further comprising a receiver for receiving data from the shared resource;

wherein the processor is configured to power down the receiver for at least a portion of said first average backoff interval while the apparatus is refraining from contending for access to the shared resource.

15.-16. (Canceled)

17. (Previously Presented) The apparatus of claim 13, wherein said shared resource is a shared-communications channel and wherein said transmitter communicates over the shared-communications channel in accordance with an IEEE 802.11 protocol.

18. (Currently Amended) A system comprising:

a station and an access point communicating over a shared resource, the access point configured to:

determine a first average backoff interval value by measuring an average wait time that the access point incurred during a plurality of previous attempts to access the shared resource; and

distribute the first average backoff interval value to the station,
the station configured to:

transmit data over said shared resource;

receive the first average backoff interval value from said access point;

once it is determined that the station desires access to the shared resource and the shared resource first becomes available, refrain from contending for access to said shared resource for at least a first interval substantially equal to said first average

backoff interval value; and

power down a receiver circuit for at least a portion of said first interval while the station refrains from accessing the shared resource.

19.-20. (Canceled)

21. (Currently Amended) The system of claim 18, wherein the station refrains from contending for access to the shared resource for a second random backoff ~~period~~ interval beyond said first average backoff ~~period~~ interval.

22. (Currently Amended) An apparatus comprising:

a means for transmitting data over a shared resource;

a means for determining a first average backoff interval by measuring an average wait time that the means for transmitting incurred during a plurality of previous access attempts; and

a means for determining that the apparatus desires access to the shared resource and that the shared resource has first become available, and for causing the apparatus to refrain from contending for access to said shared resource for at least an interval substantially equal to the first average backoff interval.

23. (Currently Amended) The apparatus of claim 22, further comprising a means for, after the first average backoff ~~period~~ interval is determined, powering down a receiving means for at least a portion of said first average backoff interval while the apparatus refrains from contending for access to the shared resource.

24. (Canceled)

25. (Previously Presented) The apparatus of claim 22, wherein said shared resource is a shared-communications channel and wherein said means for transmitting transmits over the shared-communications channel in accordance with an 802.11 protocol.

26. (Currently Amended) The method of claim 3, further comprising the first station powering down a transmitter circuit for at least the same portion of said first average backoff interval.

27. (Currently Amended) The apparatus of claim 14, wherein the processor is configured to power down the transmitter for at least the same portion of said first average backoff interval.

28. (Previously Presented) The method of claim 1, wherein the first station measuring an average wait time comprises:

the first station measuring a plurality of wait times, each wait time measured (i) from a time that the first station first determines that the shared resource has become idle (ii) to a time that the first station actually transmits a pending frame on the shared resource; and calculating an average of the plurality of wait times.

29. (Previously Presented) The method of claim 8, wherein the first station measuring an average wait time comprises:

the first station measuring a plurality of wait times, each wait time measured (i) from a time that the first station first determines that the shared resource has become idle (ii) to a time that the first station actually transmits a pending frame on the shared resource; and calculating an average of the plurality of wait times.

30. (Previously Presented) The apparatus of claim 13, wherein measuring an average wait time comprises:

the processor being configured to measure a plurality of wait times, each wait time measured (i) from a time that the processor first determines that the shared resource has become idle (ii) to a time that the transmitter actually transmits a pending frame on the shared resource; and

the processor being configured to calculate an average of the plurality of wait times.

31. (Previously Presented) The system of claim 18, wherein measuring an average wait time comprises:

the access point being configured to measure a plurality of wait times, each wait time measured (i) from a time that the access point first determines that the shared resource has become idle (ii) to a time that the access point actually transmits a pending frame on the shared resource; and

the access point being configured to calculate an average of the plurality of wait times.

32. (Previously Presented) The apparatus of claim 22, wherein measuring an average wait time comprises:

the means for determining measuring a plurality of wait times, each wait time measured (i) from a time that the apparatus first determines that the shared resource has become idle (ii) to a time that the apparatus actually transmits a pending frame on the shared resource; and

the means for determining calculating an average of the plurality of wait times.